AMENDMENTS TO THE CLAIMS

Please amend Claim 22 as follows:

1. (Original) A method of optimizing retrieval of electronic documents, comprising the computer-implemented steps of:

receiving a first electronic document;

identifying one or more symbolic references to other electronic documents within the first electronic document;

determining a network address of each of the other electronic documents corresponding to each of the symbolic references;

creating and storing a modified copy of the first electronic document in which the network address is substituted for each corresponding symbolic reference;

delivering the modified copy of the electronic document in response to all subsequent client requests for the first electronic document.

2. (Original) A method as recited in Claim 1, further comprising the steps of delivering an unmodified copy of the first electronic document in response to a client request for the first electronic document, concurrently while performing the steps of identifying, determining, creating and storing.

3. (Original) A method as recited in Claim 1, further comprising the steps of:

determining that a plurality of the symbolic references identify one particular host name;

substituting a different network address in each of the symbolic references that identify the particular host name, wherein each different network address is associated with one of a plurality of replicated servers.

4. (Original) A method as recited in Claim 1, further comprising the steps of creating and storing the modified copy in cache storage of a cache server that

executes the method; delivering the modified copy from the cache in response to all subsequent client requests for the first electronic document.

5. (Original) A method as recited in Claim 4, further comprising the steps of:

retrieving and storing in the cache storage, each of the other electronic documents;

carrying out the steps of identifying, determining, creating and storing, and delivering for each of the other electronic documents in the cache storage, before or at the same time as receiving one or more client requests for the other electronic documents.

6. (Original) A method as recited in Claim 1, further comprising the steps of:

determining that one or more of the symbolic references identifies a prohibited network resource;

substituting a network address of a pre-determined network resource for the symbolic references to the prohibited network resource.

7. (Original) A method as recited in Claim 6, wherein the pre-determined network resource is a pre-defined electronic document that comprises a message specifying that access to the prohibited network resource is prohibited.

8. (Original) A method as recited in Claim 1, wherein the electronic document comprises an HTML document, and wherein the symbolic references comprise only embedded URLs in the HTML document.

9. (Original) A method as recited in Claim 1, wherein the electronic document comprises an HTML document, and wherein the symbolic references comprise only selected URLs in the HTML document as determined according to a selection policy.

10. (Original) A method as recited in Claim 1, wherein the electronic document comprises an HTML document, and wherein the symbolic references comprise all URLs in the HTML document.

11. (Original) A method of optimizing access to a network resource, comprising the computer-implemented steps of:

receiving a network resource that contains one or more embedded symbolic host name references;

determining a network address corresponding to each of the embedded symbolic host name references;

creating and storing a modified copy of the network resource in which a network address is substituted for each corresponding embedded symbolic host name reference;

using the modified copy of the network resource in responding to all subsequent client requests for the network resource, thereby greatly reducing the required number of network address lookup operations.

12. (Original) A router that includes a stored program comprising one or more sequences of instructions for optimizing retrieval of network resources, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:

receiving data packets of a network resource that contains one or more embedded symbolic host name references;

determining a network address corresponding to each of the embedded symbolic host name references;

creating and storing a modified copy of the network resource in which a network address is substituted for each corresponding embedded symbolic host name reference;

using the modified copy of the network resource in delivering the network resource to a client, thereby greatly reducing the required number of network address lookup operations.

13. (Original) A cache server that includes a computer-readable medium carrying one or more sequences of instructions for optimizing retrieval of network resources, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:

receiving a network resource that contains one or more embedded symbolic host name references;

determining a network address corresponding to each of the embedded symbolic host name references;

creating and storing a modified copy of the network resource in which a network address is substituted for each corresponding embedded symbolic host name reference;

using the modified copy of the network resource in responding to all subsequent client requests for the network resource, thereby greatly reducing the required number of network address lookup operations.

14. (Original) A proxy server that includes a computer-readable medium carrying one or more sequences of instructions for optimizing retrieval of network resources, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:

receiving a network resource that contains one or more embedded symbolic host name references;

determining a network address corresponding to each of the embedded symbolic host name references;

creating and storing a modified copy of the network resource in which a network address is substituted for each corresponding embedded symbolic host name reference;

using the modified copy of the network resource in responding to all subsequent client requests for the network resource, thereby greatly reducing the required number of network address lookup operations.

15. (Original) Apparatus for optimizing retrieval of electronic documents, comprising:

means for receiving a first electronic document;

means for identifying one or more symbolic references to other electronic documents within the first electronic document;

means for determining a network address of each of the other electronic documents corresponding to each of the symbolic references;

means for creating and storing a modified copy of the first electronic document in which the network addresses are substituted for all corresponding symbolic references;

means for delivering the modified copy of the electronic document in response to all subsequent client requests for the first electronic document.

16. (Original) A computer-readable medium carrying one or more sequences of instructions for optimizing retrieval of network resources, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:

receiving a network resource that contains one or more embedded symbolic host name references;

determining a network address corresponding to each of the embedded symbolic host name references;

creating and storing a modified copy of the network resource in which a network address is substituted for each corresponding embedded symbolic host name reference;

using the modified copy of the network resource in responding to all subsequent client requests for the network resource, thereby greatly reducing the required number of network address lookup operations.

17. (Original) A computer-readable medium as recited in Claim 16, further comprising the steps of delivering an unmodified copy of the first electronic document in response to a client request for the first electronic document, concurrently while performing the steps of identifying, determining, creating and storing.

18. (Original) A computer-readable medium as recited in Claim 16, further comprising the steps of:

determining that a plurality of the symbolic references identify one particular host name;

substituting a different network address in each of the symbolic references that identify the particular host name, wherein each different network address is associated with one of a plurality of replicated servers.

19. (Original) A computer-readable medium as recited in Claim 16, further comprising the steps of creating and storing the modified copy in cache storage of a cache server that executes the method; delivering the modified copy from the cache in response to all subsequent client requests for the first electronic document.

20. (Original) A computer-readable medium as recited in Claim 19, further comprising the steps of:

retrieving and storing in the cache storage, each of the other electronic documents;

carrying out the steps of identifying, determining, creating and storing, and delivering for each of the other electronic documents in the cache storage,

before or at the same time as receiving one or more client requests for the other electronic documents.

21. (Original) A computer-readable medium as recited in Claim 16, further comprising the steps of:

determining that one or more of the symbolic references identifies a prohibited network resource;

substituting a network address of a pre-determined network resource for the symbolic references to the prohibited network resource.

22. (Currently Amended) A computer-readable medium as recited in Claim 16, wherein the pre-determined network resource is a pre-defined electronic document that comprises a message specifying that access to ~~the~~ a prohibited network resource is prohibited.

23. (Original) A computer-readable medium as recited in Claim 16, wherein the electronic document comprises an HTML document, and wherein the symbolic references comprise only embedded URLs in the HTML document.

24. (Original) A computer-readable medium as recited in Claim 16, wherein the electronic document comprises an HTML document, and wherein the symbolic references comprise only selected URLs in the HTML document as determined according to a selection policy.

25. (Original) A computer-readable medium as recited in Claim 16, wherein the electronic document comprises an HTML document, and wherein the symbolic references comprise all URLs in the HTML document.

26. (Original) A method as recited in Claim 1, wherein the step of determining a network address of each of the other electronic documents corresponding to each of the symbolic references comprises load balancing by the steps of successively selecting a different one of a plurality of pre-determined network addresses of a

plurality of servers for substitution for successive identical symbolic hostname references.

27. (Original) A computer-readable medium as recited in Claim 16, wherein the step of determining a network address of each of the other electronic documents corresponding to each of the symbolic references comprises load balancing the steps of successively selecting a different one of a plurality of pre-determined network addresses of a plurality of servers for substitution for successive identical symbolic hostname references.

28. (Original) A method as recited in Claim 1, wherein the electronic document comprises an HTML document, and wherein the symbolic references comprise hostnames in embedded URLs in the HTML document and hostnames in hyperlinks in the HTML document.

29. (Original) A method of optimizing retrieval of electronic documents, comprising the computer-implemented steps of:

receiving a first electronic document;

identifying one or more symbolic host names contained only in one or more embedded Universal Resource Locators (URLs) within the first electronic document;

determining a network address of each host corresponding to each of the host names;

creating and storing a modified copy of the first electronic document in which the network address is substituted for each of the host names;

delivering the modified copy of the electronic document in response to all subsequent client requests for the first electronic document.

30. (Original) A method as recited in Claim 29, further comprising the steps of:

identifying one or more second host names contained in one or more hyperlinks delineated by anchor tags within the first electronic document;

determining a second network address of each second host corresponding to each of the second host names;

storing the second network addresses in place of each of the second host names in the modified copy of the first electronic document.